IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A scanning optical apparatus, ~~comprising;~~ comprising:

light source means;

a first optical element that converts a light flux emitted from the light source means;

a second optical element that converts the light flux emitted from the first optical element into a longitudinal linear image in a main scanning direction;

a deflection element that scanningly deflects the light flux emitted from the second optical element;

a third optical element that guides the light flux deflected by the deflection element to a surface to be scanned;

a synchronous detection element that obtains a synchronous signal; and

a fourth optical element that guides the light flux deflected by the deflection element to the synchronous detection element,

wherein ~~the second optical element and the fourth optical element are independent of each other, and~~ in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is assumed as a ~~reference~~ deflection point, ~~the second optical element is located at a position which is farther from the reference point than~~ an optical path from an exit

surface of the third optical element to the deflection point of the deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

2. (Currently Amended) A scanning optical apparatus ~~according to claim 1,~~ comprising:

light source means;

a first optical element that converts a light flux emitted from the light source means;

a second optical element that converts the light flux emitted from the first optical element into a longitudinal linear image in a main scanning direction;

a deflection element that scanningly deflects the light flux emitted from the second optical element;

a third optical element that guides the light flux deflected by the deflection element to a surface to be scanned;

a synchronous detection element that obtains a synchronous signal; and

a fourth optical element that guides the light flux deflected by the deflection element to the synchronous detection element,

wherein in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is assumed as a deflection point, the second optical element is located at a position which is farther from the deflection point than the further optical element, and

wherein in a case where a focal distance of the third optical element within a main scanning section is given as $f_{f\theta}$ and a focal distance of the fourth optical element within the main scanning section is given as f_{BD}, a condition,

$$f_{f\theta}/3 < f_{BD} < f_{f\theta}$$

is satisfied.

3. (Currently Amended) A scanning optical apparatus ~~according to claim 1,~~ comprising:

light source means;

a first optical element that converts a light flux emitted from the light source means;

a second optical element that converts the light flux emitted from the first optical element into a longitudinal linear image in a main scanning direction;

a deflection element that scanningly deflects the light flux emitted from the second optical element;

a third optical element that guides the light flux deflected by the deflection element to a surface to be scanned;

a synchronous detection element that obtains a synchronous signal; and

a fourth optical element that guides the light flux deflected by the deflection element to the synchronous detection element,

wherein in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is

assumed as a deflection point, the second optical element is located at a position which is farther from the deflection point than the further optical element, and

wherein in a case where a focal distance of the third optical element within a main scanning section is given as $f_{f\theta}$, an imaging magnification of the third optical element within a sub scanning section is given as $\beta_{f\theta}$, and a focal distance of the second optical element within the sub scanning section is given as f_{c1}, a condition,

$$f_{c1} > f_{f\theta}/(2|\beta_{f\theta}|)$$

is satisfied.

4. (Original) A scanning optical apparatus according to claim 1, wherein the second optical element includes a cylindrical lens.

5. (Original) A scanning optical apparatus according to claim 1, wherein the fourth optical element includes an anamorphic lens and is capable of imaging a light flux at a position where the synchronous detection element is disposed or in a vicinity thereof within a main scanning section.

6. (Original) A scanning optical apparatus according to claim 1, wherein the fourth optical element includes a lens made of plastic.

7. (Original) A scanning optical apparatus according to claim 1, wherein the light source means is an independent modulatable multi-beam light source.

8. (Original) A scanning optical apparatus according to claim 1, further comprising a reflecting mirror that changes an optical path of the light flux, which is disposed on an optical path from the light source means to the deflection element.

9. (Original) A scanning optical apparatus according to claim 1, wherein the fourth optical element is disposed in a region sandwiched between an optical path from the light source means to the deflection element and an optical path from the deflection element to the surface to be scanned.

10. (Original) A scanning optical apparatus according to claim 1, wherein the light source means and the synchronous detection element are disposed on the same electrical board.

11. (Currently Amended) A scanning optical apparatus for scanning plurality of surfaces to be scanned, ~~comprising;~~ comprising:

plurality of light source means;

a plurality of first optical elements that converts light fluxes emitted from the plurality of light source means;

at least one second optical element that converts the plurality of light fluxes emitted from the plurality of first optical elements into longitudinal linear images in a main scanning direction;

at least one deflection element that scanningly deflects the plurality of light fluxes from the at least one second optical element ~~for scanning~~;

at least one third optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the plurality of surfaces to be scanned;

at least one ~~a~~ synchronous detection element that obtains a synchronous signal; and

at least one fourth optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the at least one synchronous detection element,

wherein ~~the second optical element and the fourth optical element are independent of each other, and~~ in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is assumed as a ~~reference~~ deflection point, ~~the second optical element is located at a position which is farther from the reference point than~~ an optical path from an exit surface of the third optical element to the deflection point of the deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

12. (Currently Amended) A scanning optical apparatus ~~according to claim 11,~~ for scanning a plurality of surfaces to be scanned, comprising:

a plurality of light source means;

a plurality of first optical elements that convert light fluxes emitted from the plurality of light source means;

at least one second optical element that converts the plurality of light fluxes emitted from the plurality of first optical elements into longitudinal linear images in a main scanning direction;

at least one deflection element that scanningly deflects the plurality of light fluxes from the at least one second optical element;

at least one third optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the plurality of surfaces to be scanned;

at least one synchronous detection element that obtains a synchronous signal; and

at least one fourth optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the at least one synchronous detection element,

wherein in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is assumed as a deflection point, the second optical element is located at a position which is farther from the deflection point than the fourth optical element, and

wherein in a case where a focal distance of the third optical element within a main scanning section is given as $f_{f\theta}$ and a focal distance of the fourth optical element within the main scanning section is given as f_{BD}, a condition,

$$f_{f\theta}/3 < f_{BD} < f_{f\theta}$$

is satisfied.

13. (Currently amended) A scanning optical apparatus ~~according to claim 11,~~ for scanning a plurality of surfaces to be scanned, comprising:

a plurality of light source means;

a plurality of first optical elements that convert light fluxes emitted from the plurality of light source means;

at least one second optical element that converts the plurality of light fluxes emitted from the plurality of first optical elements into longitudinal linear images in a main scanning direction;

at least one deflection element that scanningly deflects the plurality of light fluxes from the at least one second optical element;

at least one third optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the plurality of surfaces to be scanned;

at least one synchronous detection element that obtains a synchronous signal; and

at least one fourth optical element that guides the plurality of light fluxes emitted from the at least one deflection element to the at least one synchronous detection element,

wherein in a case where a point at which a principal ray traveling toward a scanning center on the surface to be scanned is deflected by the deflection element is

assumed as a deflection point, the second optical element is located at a position which is farther from the deflection point than the fourth optical element, and

wherein in a case where a focal distance of the third optical element within a main scanning section is given as $f_{f\theta}$, an imaging magnification of the third optical element within a sub scanning section is given as $\beta_{f\theta}$, and a focal distance of the second optical element within the sub scanning section is given as f_{c1}, a condition,

$$f_{c1} > f_{f\theta}/(2|\beta_{f\theta}|)$$

is satisfied.

14. (Original) A scanning optical apparatus according to claim 11, wherein the second optical element includes a cylindrical lens.

15. (Original) A scanning optical apparatus according to claim 11, wherein the fourth optical element includes an anamorphic lens and is capable of imaging a light flux at a position where the synchronous detection element is disposed or in a vicinity thereof, within a main scanning section.

16. (Original) A scanning optical apparatus according to claim 11, wherein the fourth optical element includes a lens made of plastic.

17. (Original) A scanning optical apparatus according to claim 11, wherein the light source means is an independent modulatable multi-beam light source.

18. (Original) A scanning optical apparatus according to claim 11, further comprising a reflecting mirror that changes an optical path, which is disposed on an optical path from the light source means to the deflection element.

19. (Original) A scanning optical apparatus according to claim 11, wherein the fourth optical element is disposed in a region sandwiched between an optical path from the light source means to the deflection element and an optical path from the deflection element to the surface to be scanned.

20. (Original) A scanning optical apparatus according to claim 11, wherein the light source means and the synchronous detection element are disposed on the same electrical board.

21. (Original) An image forming apparatus, comprising:

a scanning optical device according to any one of claims 1 to 10;

a photosensitive member disposed on a surface to be scanned;

a developing unit that develops, as a toner image, an electrostatic latent image, which is formed on the photosensitive member scanned by the scanning optical device using a light flux;

a transferring unit that transfers the developed toner image to a material to be transferred; and

a fixing device that fixes the transferred toner image to the material to be transferred.

22. (Original) A color image forming apparatus, comprising:

a scanning optical device according to any one of claims 11 to 20;

a plurality of photosensitive members disposed on the plurality of surfaces to be scanned;

a plurality of developing units that develop, as toner images, electrostatic latent images, which are formed on the photosensitive members scanned by the scanning optical device using the plurality of light fluxes;

a plurality of transferring units that transfer the developed toner images to materials to be transferred; and

a fixing device that fixes the transferred toner images to the materials to be transferred.

23. (Original) An image forming apparatus, comprising:

a scanning optical device according to any one of claims 1 to 10; and

a printer controller that converts code data inputted from an external device into an image signal and outputs the image signal to the scanning optical device.

24. (Original) A color image forming apparatus, comprising:

a scanning optical device according to any one of claims 11 to 20; and

a printer controller that converts code data inputted from an external device into an image signal and outputs the image signal to the scanning optical device.

Please add Claims 25 to 28, as follows:

25. (New) A scanning optical apparatus according to Claim 2, wherein an optical path from an exit surface of the third optical element to the deflection point of the deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

26. (New) A scanning optical apparatus according to Claim 3, wherein an optical path from an exit surface of the third optical element to the deflection point of the deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

27. (New) A scanning optical apparatus according to Claim 12, wherein an optical path from an exit surface of the third optical element to the deflection point of the deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.

28. (New) A scanning optical apparatus according to Claim 13, wherein an optical path from an exit surface of the third optical element to the deflection point of the

deflection element is longer than an optical path from the deflection point to an incident surface of the fourth optical element.